



The new MSFS2020

by Captain Paul Sweeney

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*It's strange how a simple picture or video can stir so many emotions of awe and wonder in so many people, young and old. When **CrewLounge® AERO** asked "**Has anyone tried the new MS FS2020?**", I replied with just a simple video. Soon after, I was tasked with a conundrum of writing a blog of a subject very close to my heart for many years...*

A long time ago in a galaxy far, far away...

Is a very apt starting point when one has to start writing about something that has so many angles, points of view and talking points. Both professionally and personally. But like every good story, we need a beginning, a base line of facts and an ending.

The Beginning

The story of Flight sim is much like the beginnings of a Star Wars Movie, every year the sneak peek is released months before the actual event, the build-up the suspense, the speculations of what if? Could it be? I hope that.... Then the day arrives, the long queues, popcorn in hand, you take your seat, the lights go down and it begins.

The event is much like any enthusiast of aviation and those of us in the Flight simming community. Our story begins about a year ago when at E3 a video was released to the public nobody knew of its existence nor the Company development.

<https://www.youtube.com/watch?v=4vZla2qyakg>

Within hours of this video dropping the world was abuzz with excitement, stunned silence, and comments of no way.... is it back?

The last in the series was released in 2010 and since then numerous platforms have been developed with success and some a little less.

As a little boy growing up in South Africa, I was brought up in an aviation background. Although my father was not a commercial pilot, he was involved in the Aviation industry. I grew up with the smell of avgas and weekends spent at the flying fields of what was then known as the Highveld.

I began a career in aviation working at the local flying field and at the age of 15 obtained my PPL, as the years passed, I expanded my hours and at the age of 21 obtained my CPL. My love for Aviation grew as did my inquisitive nature to learn, I did not own a pc until the summer of 99 that I was gifted with an Intel Pentium 3. I promptly marched to the local PC store and purchased FS98...

What I was greeted with was a world of awe and grace, the envelope to explore and investigate with no consequence or cost was there. This is where the love for both things emerge!



Why do I say this because if you are an individual who is introduced to the FS genre, with no knowledge of flying the spark is ignited and the flame is set alight for the future of flight? And for those that are already in love with aviation, the FS genre takes you by the hand and leads you to a way of experimenting with the thing you love the most.

The Today

My name is Paul Sweeney, I'm an airline captain with some 16,500 hours, flying the world with a (real) Boeing 777. And yes, I still play Flight Simulator like a school boy every chance I get!

When I was made aware of the new FS 2020 product launch my senses were tingling with excitement, why you ask..... Just imagine the technological leaps that we have achieved in the last decade from the last release of Flight Simulator X.



The CPU's 8 cores and up, GPU of the likes of 2080Ti and memory that runs faster than most PC did back in the day with clock speeds in excess of 4400MHZ. Even to run FS2004 was a feat in itself with very low FPS, I've always joked and said that PC benchmarks are always done on games like Far Cry, Crysis and then Boastful benchmarks released of 60+ FPS... Hmm, one round of FS and a PC is put to shame.

And as if it was a sign from the heavens upon watching a YouTube video, a hint was given of MSFS2020 Team looking for volunteers to test their upcoming product... I applied and was accepted into the Alpha Testing phase and later the Beta phase. And so, a long year of testing, updates, crashing system and frustrations and emails that would always be answered and the final product was released on the 18th August 2020.

Based on the assumption of selling around 2.3 million units of Flight Simulator 2020 over the next three years, Microsoft® also estimates that in the same time frame \$2.6 billion is spent on hardware, with the specific intent of improving the game's experience.

The Topic at hand!

Is MSFS2020 worth the price? Well, if price is your prime concern then you need to look at it in a different perspective... The question that need to be asked is it worth more? And the answer to that is so much more.

As the FS genre has developed over the decades to the latest instalments Of P3Dv5 and X-plane have been released so has the developments of add-ons and scenery adjustments to make the sim more immersive and appealing to hard core simmers and just the casual once in a while individual. Let me explain! The sim is just the core and the addon's are like the arms, the legs and so on.

My personal specs:

Intel I9-9900K Clocked at 5GHZ
32GB DDR4-4400MHZ
Zotac RTX2080TI AMP Edition 11GB
Maximus Formula Z390 Motherboard

M.2 500Gb as Main windows 10 Pro Platform
Intel Optane 32 GB for My 6Tb SD 128Mb Cache
7200RPM
4 x 1GB M.2 In Raid Layout

1200-watt Power Supply
NXT 360mm Liquid cooling platform



This is where unfortunately the cost begin to mount as some products can set you back up to \$130 or more per product, in no way am I attacking the individuals that create these products and the understanding that months - if not years - of development and testing go into these products. But once you have experienced these addons your love for the finer details are awoken and the desire for more is oh so intensified, much like a fine wine.

Realtime weather

A jargon term that's used and very familiar to the FS enthusiast is the following work called textures. In the likes of P3Dv4-5 a simple but effective technique was used for the weather engine. But with a simple program to be purchased and a personal choice of mine the following was possible:



Shown here on the left is from *Aa pay-ware* addon and the right is the default.

This is where the beauty of MSFS2020 comes to full tuition! The default weather engine is one of the best I have ever had the pleasure of playing with and it comes with your copy of MSFS2020 for free... (well, free is a relative term).

The dynamics involved in capturing the world of weather has been meticulously done inside of a world that is waiting to be explored. The live weather function will at any time give a real-world perspective in real time. I'm sharing a few pictures as a representation of how immersive these products make your experience.





Another eye candy moment is the sims ability to have real time icing build up and around the aircraft in real time as the icing level within the cloud begins to increase. At which time with a simple switch on the flight deck, icing is removed once you turn on all the de-icing system.

Even the hard core in me enjoys the build of ice, fighting every instinct in me as a pilot just to watch the beauty of it as it melts before your eyes.

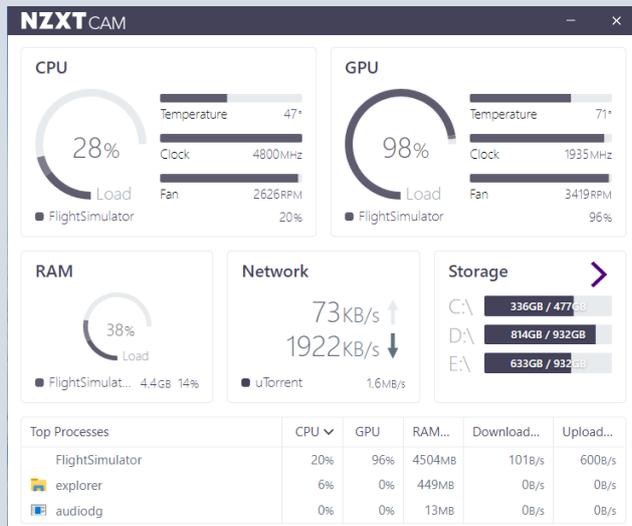


Even the effects of icing and the aerodynamic challenges it has on the wing and flying properties are models to the finest detail.

The added feature of this can be changed at any time with a flick of a switch, much to the delight of the eyes.



The same goes for the WX Radar, which in previous sims was only available with certain aircraft and further addon packages. In MSFS2020 the Green, Yellow and Red is met in full glory although I would have liked it to have been modelled a little better but gets the job done.



All of this comes at an expense of a GPU being put under heavy load. Even with the 2 fans turned to 100%, the GPU runs into the 70+ degrees range.



Aircraft Models

The new MSFS2020 comes in 3 packages, each with more aircraft and more custom airports. Which is the best, you ask, well basically is defined on your budget and level of interest in the FS. The Standard edition comes with 20 aircraft models and 30 custom airfields.

There is no right or wrong, here is where the conundrum that I mentioned begins because there are a host of companies like Just Flight, ORBX, PMDG and the list goes on that have already released addons as well as in the future will be releasing more. I myself went for the Deluxe package.



AIRCRAFT	MANUFACTURER	STANDARD	DELUXE	PREMIUM
A320neo	Airbus	✓	✓	✓
Pitts Special S2S	Aviat	✓	✓	✓
747-8 Intercontinental	The Boeing Company	✓	✓	✓
XCub	CubCrafters	✓	✓	✓
TBM 930	Daher	✓	✓	✓
DA62	Diamond Aircraft	✓	✓	✓
DA40 NG	Diamond Aircraft	✓	✓	✓
EXTRA 330LT	EXTRA	✓	✓	✓
Flight Design CTSL	Flight Design	✓	✓	✓
ICON A5	ICON Aircraft	✓	✓	✓
VL-3	JMB Aircraft s.r.o	✓	✓	✓
CAP 10	Robin Aircraft SAS	✓	✓	✓
DR400-100 Cadet	Robin Aircraft SAS	✓	✓	✓
Beechcraft Bonanza G36	Textron Aviation Inc.	✓	✓	✓
Beechcraft King Air 350i	Textron Aviation Inc.	✓	✓	✓
Cessna 152	Textron Aviation Inc.	✓	✓	✓
Cessna 172 Skyhawk (G1000)	Textron Aviation Inc.	✓	✓	✓
Cessna 208 B Grand Caravan EX	Textron Aviation Inc.	✓	✓	✓
Cessna Citation CJ4	Textron Aviation Inc.	✓	✓	✓
Savage Cub	Zlin Aviation	✓	✓	✓
DA40-TDI	Diamond Aircraft		✓	✓
DV20	Diamond Aircraft		✓	✓
Beechcraft Baron G58	Textron Aviation Inc.		✓	✓
Cessna 152 Aerobat	Textron Aviation Inc.		✓	✓
Cessna 172 Skyhawk	Textron Aviation Inc.		✓	✓
787-10 Dreamliner	The Boeing Company			✓
SR22	Cirrus Aircraft			✓
Virus SW 121	Pipistrel			✓
Cessna Citation Longitude	Textron Aviation Inc.			✓
Shock Ultra	Zlin Aviation			✓
TOTAL		20	25	30





Flightdecks

The aircraft are modelled to a perfectionist dream, aerodynamically and systems wise are more than adequate and the avionics are modelled to a high degree. But sadly on the likes of the Airbus 320, Boeing 787 and Boeing 747 the FMC are lacking with very basic functionality and at times clumsy switches and frustrating interface.

But alas this was the case right from the beginning in testing and has vastly improved and with further patches planned for the future will make the experience even more realistic.

But the future is bright, as was with the release of Addon for (FSX-P3D) like PMDG with the Boeing range of products soon to be made available to MSFS2020 and of those of you who have tasted their product knows what delights are to come.

<https://pmdg.com/prepar3d/>



Airbus 320 Neo



Beechcraft King Air B350



Citation Longitude



Beechcraft Bonanza G36



King Air B350i - by P3Dv4

In comparison MSFS2020 to P3Dv4 I still feel that (P3dv4) the aircraft systems are modelled as if you were flying a real plane and are more interactive for the serious Flightsim Nut. I say this lightly because again FS has had almost ten years to be perfected and the development of the aircraft have had the same level of time to be designed.

Again, these are all additional addons for the platform and come at a cost but within MSFS2020 you get this within the package and I cannot stress enough the level of detail and eye candy that you will experience.



The reflection of wing and engine clearly visible within the side fuselage of the 787



The reflection of instrument display on the side window



Fingerprints on the back of the iPad tablet holder (Airbus 320)

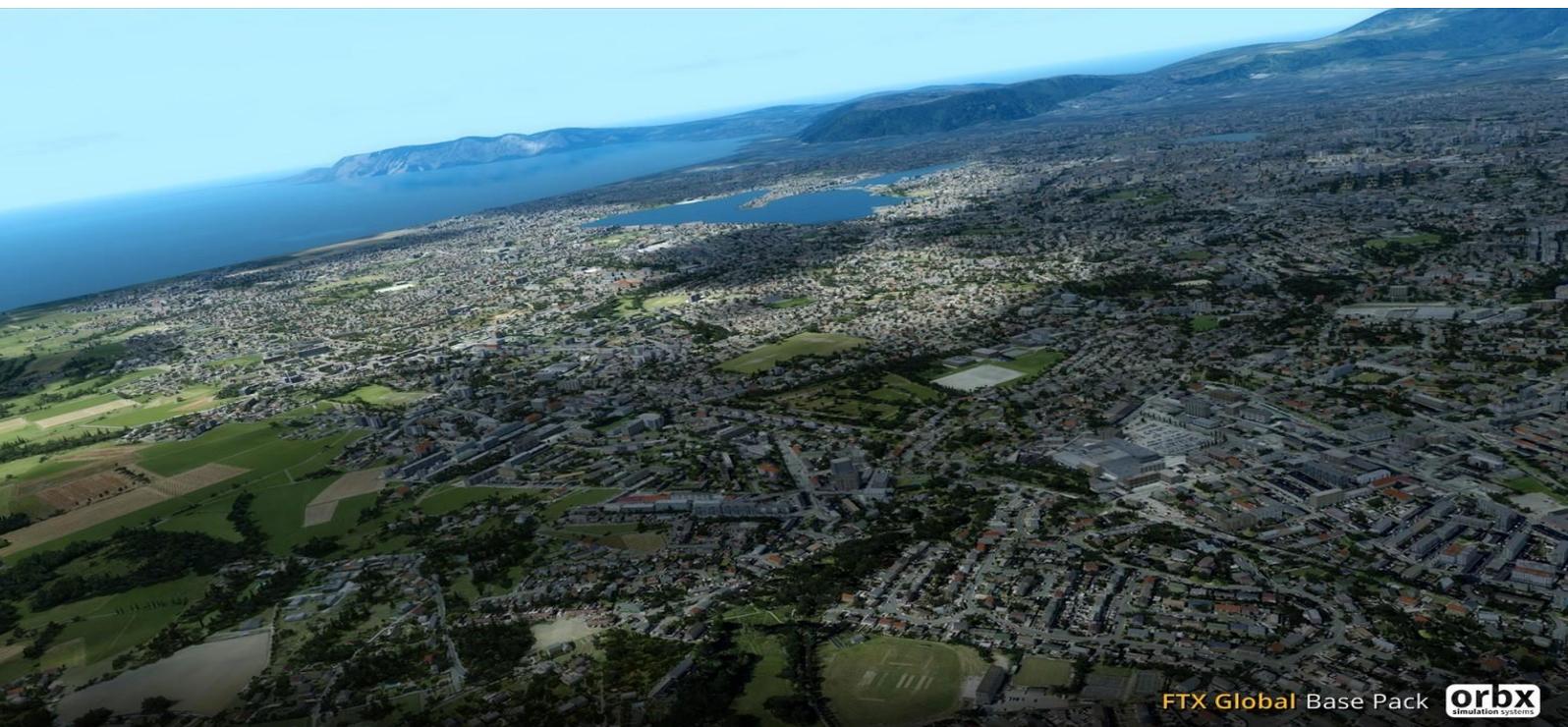


Hydraulic fluid on the brake assembly (Zlin Savage Cub)

Scenery

In the old days of FS, land was just blocks and the blocks became shapes and the shapes were covered with pictures. As the development improved so did the company that released enhanced texture packs for things like grass, trees and custom-made airports.

Then we had glorious individual with much more brain capacity than me, develop things like satellite based geometrically correct mapping and built it into the FS genera and delivers mesh scenery (= 3D wireframe). In simple language oh Good Lord that looks so real. And it does. Mountains come alive, and the terrain is transformed to a life like environment.



Again, these items are an additional cost to the Simmer.... but well worth it. Then we get to a thing called Mesh, basically the skin of the sim or photo real scenery. Long story, short story it makes a simple sim into Swim suit edition... A company Like ORBX has done just that and are a must to any flight sim genre.

They take your sim from looking like this:



into this:



This is where the beauty of MSFS2020 comes to play. All of this is already included with your purchase of the franchise!

Cities like Barcelona, Berlin, San Francisco, Seattle, New York and others that are rendered using Microsoft®'s photogrammetry method.... Yup! I know big word but don't be scared, just know that it works and its awesome.

Only drawback is that this service is streamed via the internet and is done in real time so expect big data spikes. Another drawback is that it takes a 2D model and changes it to a 3D model and can at times look blocky and stretched. But as a whole the world you fly in is paradise...!

Here are some videos you may want to check out:

<https://www.youtube.com/watch?v=G76fpK688Ng>

<https://www.youtube.com/watch?v=AgSzM644-dw>



Airports

The MSFS2020 Standard edition comes with 20 aircraft models and 30 custom “handcrafted” airfields, apart from the 37,000 other generic airfields. Here is the list with airports per package:

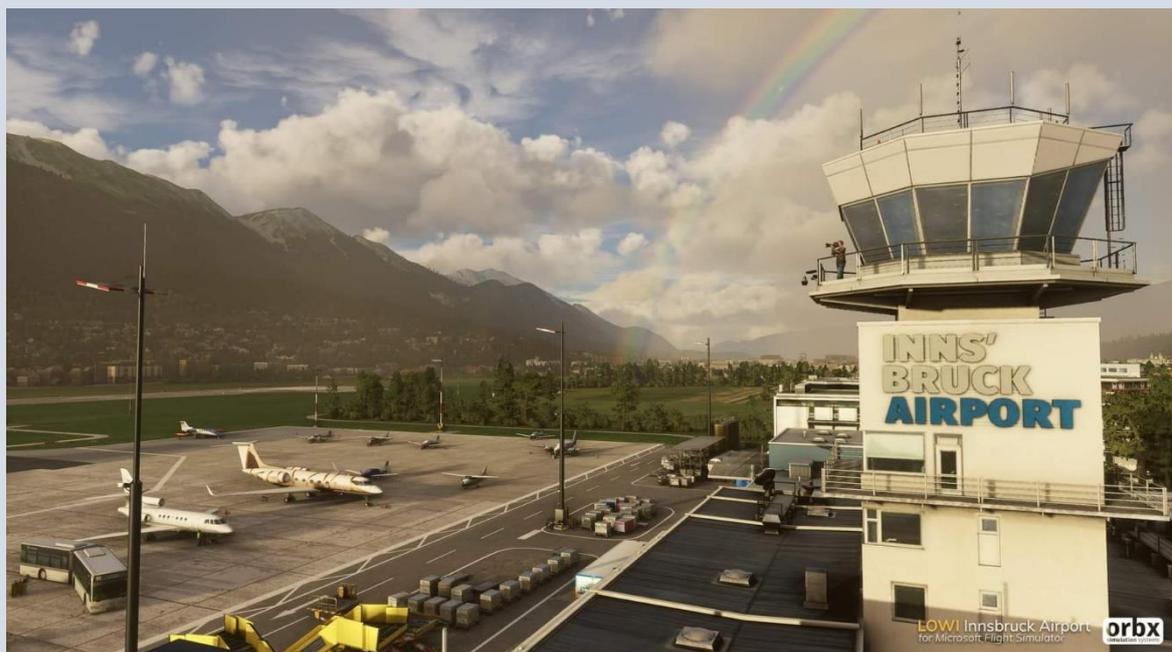


AIRPORT	ICAO	STANDARD	DELUXE	PREMIUM
Aspen/Pitkin County Airport (USA)	KASE	✓	✓	✓
Bugalaga Airstrip (CAMA) (Indonesia)	WX53	✓	✓	✓
Chagual Airport (Peru)	SPGL	✓	✓	✓
Courchevel Altiport (France)	LFLJ	✓	✓	✓
Donegal Airport (Ireland)	EIDL	✓	✓	✓
Entebbe International Airport (Uganda)	HUEN	✓	✓	✓
Cristiano Ronaldo Madeira International Airport (Portugal)	LPMA	✓	✓	✓
Gibraltar International Airport (Gibraltar/UK)	LXGB	✓	✓	✓
Innsbruck Airport (Austria)	LOWI	✓	✓	✓
Los Angeles International Airport (USA)	KLAX	✓	✓	✓
Tenzing-Hillary Airport (Nepal)	VNLK	✓	✓	✓
Nanwalek Airport (USA)	KEB	✓	✓	✓
John F. Kennedy International Airport (USA)	KJFK	✓	✓	✓
Orlando International Airport (USA)	KMCO	✓	✓	✓
Paris Charles de Gaulle Airport (France)	LFPG	✓	✓	✓
Paro International Airport (Bhutan)	VOPR	✓	✓	✓
Queenstown Airport (New Zealand)	NZQN	✓	✓	✓
Mariscal Sucre International Airport (Ecuador)	SEQM	✓	✓	✓
Rio de Janeiro–Antonio Carlos Jobim/Galeão Int'l Airport (Brazil)	SBGL	✓	✓	✓
Juancho E. Yrausquin Airport (Dutch Saba)	TNCS	✓	✓	✓
Gustaf III Airport (France/Saint Barthélemy)	TFFJ	✓	✓	✓
Seattle-Tacoma International Airport (USA)	KSEA	✓	✓	✓
Sedona Airport (USA)	KSEZ	✓	✓	✓
Sirena Aerodrome (Costa Rica)	MRSN	✓	✓	✓
Stewart Airport (Canada)	CZST	✓	✓	✓
Sydney Airport (Australia)	YSSY	✓	✓	✓
Telluride Regional Airport (USA)	KTEX	✓	✓	✓
Haneda Airport (Japan)	RJTT	✓	✓	✓
Toncontin International Airport (Honduras)	MHTG	✓	✓	✓
Billy Bishop Toronto City Airport (Canada)	CYTZ	✓	✓	✓
Amsterdam Airport Schiphol (Netherlands)	EHAM		✓	✓
Cairo International Airport (Egypt)	HECA		✓	✓
Cape Town International Airport (South Africa)	FACT		✓	✓
O'Hare International Airport (USA)	KORD		✓	✓
Adolfo Suarez Madrid-Barajas Airport (Spain)	LEMD		✓	✓
Denver International Airport (USA)	KDEN			✓
Dubai International Airport (United Arab Emirates)	OMDB			✓
Frankfurt Airport (Germany)	EDDF			✓
Heathrow Airport (United Kingdom)	EGLL			✓
San Francisco International Airport (USA)	KSFO			✓
TOTAL		30	35	40

The level of detail and eye candy will not let you down. To the additional available addons again from certain publishers.



KJFK – John F. Kennedy (USA)



LOWI – Innsbruck (Austria)



EGLC – London City (UK)



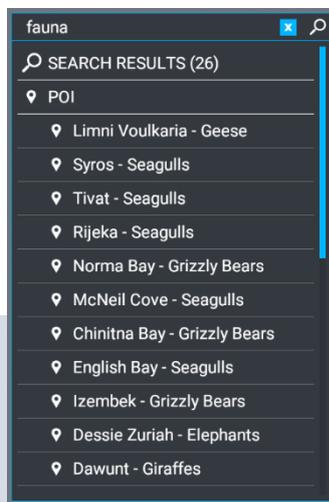
KBUR – Hollywood Burbank (USA)

The Ending

Like every good story a conclusion of facts need to be considered as I stated in the beginning.

The opinions above are mine and mine alone built of over years of FS gaming and personal experience. The game that is, or should I reword that "The experience that you are about to have", is one of awe and wonder. The advancement of the sim into the next decade with the release of this sim has open up a 6-car highway with no speed limit.

Oh, and buy the way if you want to see some wild life just type Fauna in the search function and watch the elephants walk by...



*My mouth waters with the taste of what's to come... **Enjoy it!**
And remember, there is always a pot of gold at the end of the rainbow!*

Paul Sweeney – SEP 2020

